

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 16 February 2001 (16.02.01)	
International application No. PCT/EP00/05450	Applicant's or agent's file reference PA990003
International filing date (day/month/year) 14 June 2000 (14.06.00)	Priority date (day/month/year) 19 June 1999 (19.06.99)
Applicant CHEONG, Yew, Honn et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 05 January 2001 (05.01.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
--	--

Best Available Copy

PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

BONNANS, Arnaud
Thomson Multimedia
46, quai Alphonse le Gallo
92648 Boulogne Billancourt Cedex
FRANCE

Date of mailing (day/month/year) 15 November 2001 (15.11.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference PA990003	
International application No. PCT/EP00/05450	International filing date (day/month/year) 14 June 2000 (14.06.00)

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor	<input type="checkbox"/> the agent <input type="checkbox"/> the common representative
Name and Address THOMSON MULTIMEDIA 46, quai Alphonse le Gallo F-92100 Boulogne Billancourt France	State of Nationality FR	State of Residence FR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input checked="" type="checkbox"/> the person	<input type="checkbox"/> the name	<input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence
Name and Address THOMSON LICENSING S.A. 46, quai Alphonse le Gallo F-92100 Boulogne-Billancourt France	State of Nationality FR	State of Residence FR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned	
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned	
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
---	---

Best Available Copy

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

BONNANS, Arnaud
THOMSON MULTIMEDIA
46 quai Alphonse Le Gallo
F-92648 Boulogne Billancourt Cedex
FRANCE

THOMSON multimedia RECEIVED
27 JUL 2001
Patent Department Administrative Services

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year) 25.06.2001

Applicant's or agent's file reference

IMPORTANT NOTIFICATION

International application No.
PCT/EP00/05450

International filing date (day/month/year)
14/06/2000

Priority date (day/month/year)
19/06/1999

Applicant
THOMSON MULTIMEDIA

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

 European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

Schalinatus, D

Tel. +49 89 2399-8242



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PA990003	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/05450	International filing date (day/month/year) 14/06/2000	Priority date (day/month/year) 19/06/1999
International Patent Classification (IPC) or national classification and IPC H04N5/57		
Applicant THOMSON MULTIMEDIA		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 5 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 05/01/2001 ✓	Date of completion of this report 25.06.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer D/L FUENTE DEL ... P Telephone No. +49 89 2399 8608



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP00/0545**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-4 as originally filed

Claims, No.:

1-11 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP00/0545

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims 1-11
	No:	Claims
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-11
Industrial applicability (IA)	Yes:	Claims 1-11
	No:	Claims

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05450

Ad section VIII:

1. Independent claim 1:
 - a. The definition of the means for "simulating absence of gross signal" is inexistent and therefore unclear. As a consequence, the technical effect of "simulating absence of gross signal" is not clear either (Art.6 PCT).
 - b. There is no defined interaction between the different constituting elements of the display apparatus so that the claim amounts to a juxtaposition of several technically independent features that do not appear to properly define the subject matter for which protection is sought (Art.6 PCT).
2. Independent claim 10:
 - a. The definition of the subject matter of claim 10 is not clear either. In the absence of a proper definition of the reference signal V_0 , the definition of the error signal remains obscure in particular in both open and closed states of switch K. As a consequence, it is not clear how the amplifying means is controlled and therefore what the output of the amplifying means 22 actually is (Art. 6 PCT).
 - b. It does not appear that said first circuit 1 provides any technical relationship that would be beneficial for defining the alleged invention, with the remaining constituting elements of the display apparatus (Art.6 PCT).

Ad section V:

Reference is made to following document:

D1: PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01, 31 January 1997
(1997-01-31) -& JP 08 251503 A (HITACHI LTD), 27 September 1996
(1996-09-27) & US 5 978 041 A

1. Independent claim 1:
 - a. D1 (the references between brackets relate to the JP document) discloses a display apparatus comprising :
a cathode ray tube (1; fig.22, 101),
and a circuit (10, fig.22, 110; 11, 110) receiving a gross signal ("video 1") on a source input (53) and providing on at least an output at least a luminance signal ("video 2") controlling an electron stream of the cathode ray tube (1, 101),
characterised by means for simulating absence of gross signal ("video 1") when the apparatus switches from on to off (by means of control of voltage controlled

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05450

amplifier 10).

- b. The differences between the subject matter of claim 1 and D1 are that the claim defines a first circuit providing a high voltage to the cathode. However, this is a widely known and implemented measure that the skilled person would consider without the exercise of an inventive step (Article 33(3) PCT). It is therefore considered that the subject matter of claim 1 lacks an inventive step (Article 33(3) PCT).
- 2. Independent claim 10:
 - a. The objections raised against claim 1 also apply *mutatis mutandis* to claim 10 which also lacks an inventive step (Art. 33(3) PCT).
- 3. Dependent claims 2-9 and 11:
 - a. Considering the teachings of D1 and the design competence of the skilled person, it does not appear that the preferred embodiments recited in the dependent claims add anything inventive (Article 33(3)PCT) to the claims on which they depend.
- 4. Given that the claims aim to define a display apparatus there is no doubt that an industrial applicability exists.

Ad section VII:

- a. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein (Rule 5.1 (a) (i) (ii)).
- b. ~~Independent claims are not in the two-part form in accordance with Rule 6.3(b)~~ PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in a preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).

REC'D 27 JUN 2001



WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

5

Applicant's or agent's file reference PA990003		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP00/05450	International filing date (day/month/year) 14/06/2000	Priority date (day/month/year) 19/06/1999
International Patent Classification (IPC) or national classification and IPC H04N5/57		
Applicant THOMSON MULTIMEDIA		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input checked="" type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application 		
Date of submission of the demand 05/01/2001		Date of completion of this report 25.06.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer D/L FUENTE DEL ..., P Telephone No. +49 89 2399 8608 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/05450

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-4 as originally filed

Claims, No.:

1-11 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/05450

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-11
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-11
Industrial applicability (IA)	Yes:	Claims	1-11
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05450

Ad section VIII:

1. Independent claim 1:
 - a. The definition of the means for "simulating absence of gross signal" is inexistent and therefore unclear. As a consequence, the technical effect of "simulating absence of gross signal" is not clear either (Art.6 PCT).
 - b. There is no defined interaction between the different constituting elements of the display apparatus so that the claim amounts to a juxtaposition of several technically independent features that do not appear to properly define the subject matter for which protection is sought (Art.6 PCT).
2. Independent claim 10:
 - a. The definition of the subject matter of claim 10 is not clear either. In the absence of a proper definition of the reference signal V_0 , the definition of the error signal remains obscure in particular in both open and closed states of switch K. As a consequence, it is not clear how the amplifying means is controlled and therefore what the output of the amplifying means 22 actually is (Art. 6 PCT).
 - b. It does not appear that said first circuit 1 provides any technical relationship that would be beneficial for defining the alleged invention, with the remaining constituting elements of the display apparatus (Art.6 PCT).

Ad section V:

Reference is made to following document:

D1: PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01, 31 January 1997
(1997-01-31) -& JP 08 251503 A (HITACHI LTD), 27 September 1996
(1996-09-27) & US 5 978 041 A

1. Independent claim 1:
 - a. D1 (the references between brackets relate to the JP document) discloses a display apparatus comprising :
a cathode ray tube (1; fig.22, 101),
and a circuit (10, fig.22, 110; 11, 110) receiving a gross signal ("video 1") on a source input (53) and providing on at least an output at least a luminance signal ("video 2") controlling an electron stream of the cathode ray tube (1, 101),
characterised by means for simulating absence of gross signal ("video 1") when the apparatus switches from on to off (by means of control of voltage controlled

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05450

amplifier 10).

- b. The differences between the subject matter of claim 1 and D1 are that the claim defines a first circuit providing a high voltage to the cathode. However, this is a widely known and implemented measure that the skilled person would consider without the exercise of an inventive step (Article 33(3) PCT). It is therefore considered that the subject matter of claim 1 lacks an inventive step (Article 33(3) PCT).
2. Independent claim 10:
 - a. The objections raised against claim 1 also apply *mutatis mutandis* to claim 10 which also lacks an inventive step (Art. 33(3) PCT).
3. Dependent claims 2-9 and 11:
 - a. Considering the teachings of D1 and the design competence of the skilled person, it does not appear that the preferred embodiments recited in the dependent claims add anything inventive (Article 33(3)PCT) to the claims on which they depend.
4. Given that the claims aim to define a display apparatus there is no doubt that an industrial applicability exists.

Ad section VII:

- a. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein (Rule 5.1 (a) (i) (ii)).
- b. Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in a preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).



TENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PA990003	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 05450	International filing date (day/month/year) 14/06/2000	(Earliest) Priority Date (day/month/year) 19/06/1999
Applicant THOMSON MULTIMEDIA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05450

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N5/57 H04N5/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01, 31 January 1997 (1997-01-31) -& JP 08 251503 A (HITACHI LTD), 27 September 1996 (1996-09-27)	1-3,9
Y	abstract; figures 1-33	4-8,10, 11
	& US 5 978 041 A	
Y	EP 0 178 044 A (VICTOR COMPANY OF JAPAN) 16 April 1986 (1986-04-16) page 7, line 19 -page 20	4-8,10, 11
	----- -/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

23 August 2000

Date of mailing of the international search report

30/08/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Materne, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05450

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KENICHI NAKAJIMA ET AL: "COMPUTER-CONTROLLED NTSC SINGLE-CHIP LSI FOR COLOR TV" IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, US, IEEE INC. NEW YORK, vol. 39, no. 3, page 429-434 XP000396314 ISSN: 0098-3063 page 432, column 2 ----	1-11
A	US 5 339 114 A (LAGONI WILLIAM A ET AL) 16 August 1994 (1994-08-16) column 4, line 21 -column 8, line 12 ----	1-11
A	US 4 742 392 A (HASHIMOTO SEIJI) 3 May 1988 (1988-05-03) column 3, line 22 -column 7, line 49 ----	1-11
A	US 4 980 756 A (LAGONI WILLIAM A) 25 December 1990 (1990-12-25) column 2, line 22 -column 5, line 41 -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/05450

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 08251503	A	27-09-1996	US 5978041 A	02-11-1999
EP 0178044	A	16-04-1986	JP 61039625 A	25-02-1986
			DE 178044 T	04-09-1986
			KR 8905235 B	18-12-1989
US 5339114	A	16-08-1994	NONE	
US 4742392	A	03-05-1988	JP 1811352 C	27-12-1993
			JP 5019864 B	17-03-1993
			JP 60145773 A	01-08-1985
			JP 2052641 C	10-05-1996
			JP 7079447 B	23-08-1995
			JP 60033783 A	21-02-1985
US 4980756	A	25-12-1990	AT 145308 T	15-11-1996
			CA 2023852 A,C	26-02-1991
			CN 1049767 A,B	06-03-1991
			DE 69029109 D	19-12-1996
			DE 69029109 T	17-04-1997
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			ES 2096566 T	16-03-1997
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			JP 2612508 B	21-05-1997
			JP 3091393 A	16-04-1991
			KR 169963 B	20-03-1999
			PT 95107 A,B	31-03-1992
			SG 64866 A	25-05-1999
			RU 2107409 C	20-03-1998
			TR 26428 A	15-03-1995

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05450

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/57 H04N5/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01, 31 January 1997 (1997-01-31) -& JP 08 251503 A (HITACHI LTD), 27 September 1996 (1996-09-27) abstract; figures 1-33	1-3,9
Y	& US 5 978 041 A	4-8,10, 11
Y	EP 0 178 044 A (VICTOR COMPANY OF JAPAN) 16 April 1986 (1986-04-16) page 7, line 19 -page 20 -/-	4-8,10, 11

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

23 August 2000

Date of mailing of the international search report

30/08/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Materne, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05450

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KENICHI NAKAJIMA ET AL: "COMPUTER-CONTROLLED NTSC SINGLE-CHIP LSI FOR COLOR TV" IEEE TRANSACTIONS ON CONSUMER ELECTRONICS,US,IEEE INC. NEW YORK, vol. 39, no. 3, page 429-434 XP000396314 ISSN: 0098-3063 page 432, column 2	1-11
A	US 5 339 114 A (LAGONI WILLIAM A ET AL) 16 August 1994 (1994-08-16) column 4, line 21 -column 8, line 12	1-11
A	US 4 742 392 A (HASHIMOTO SEIJI) 3 May 1988 (1988-05-03) column 3, line 22 -column 7, line 49	1-11
A	US 4 980 756 A (LAGONI WILLIAM A) 25 December 1990 (1990-12-25) column 2, line 22 -column 5, line 41	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/05450

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 08251503	A	27-09-1996	US 5978041 A	02-11-1999
EP 0178044	A	16-04-1986	JP 61039625 A	25-02-1986
			DE 178044 T	04-09-1986
			KR 8905235 B	18-12-1989
US 5339114	A	16-08-1994	NONE	
US 4742392	A	03-05-1988	JP 1811352 C	27-12-1993
			JP 5019864 B	17-03-1993
			JP 60145773 A	01-08-1985
			JP 2052641 C	10-05-1996
			JP 7079447 B	23-08-1995
			JP 60033783 A	21-02-1985
US 4980756	A	25-12-1990	AT 145308 T	15-11-1996
			CA 2023852 A,C	26-02-1991
			CN 1049767 A,B	06-03-1991
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			KR 169963 B	20-03-1999
			PT 95107 A,B	31-03-1992
			SG 64866 A	25-05-1999
			RU 2107409 C	20-03-1998
			TR 26428 A	15-03-1995

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:

THOMSON MULTIMEDIA
Attn. BONNANS, Arnaud
46 quai Alphonse Le Gallo
F-92648 Boulogne Billancourt Cedex
FRANCE

Date of mailing
(day/month/year)

30/08/2000

Applicant's or agent's file reference

PA990003

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/EP 00/ 05450

International filing date
(day/month/year)

14/06/2000

Applicant

THOMSON MULTIMEDIA

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Fascimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hans Pettersson

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PA990003	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/05450	International filing date (day/month/year) 14/06/2000	(Earliest) Priority Date (day/month/year) 19/06/1999
Applicant THOMSON MULTIMEDIA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- ☒ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 00/05450

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04N5/57 H04N5/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01, 31 January 1997 (1997-01-31) -& JP 08 251503 A (HITACHI LTD), 27 September 1996 (1996-09-27)	1-3,9
Y	abstract; figures 1-33 & US 5 978 041 A	4-8,10, 11
Y	EP 0 178 044 A (VICTOR COMPANY OF JAPAN) 16 April 1986 (1986-04-16) page 7, line 19 -page 20 -/--	4-8,10, 11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

23 August 2000

Date of mailing of the international search report

30/08/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Materne, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05450

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KENICHI NAKAJIMA ET AL: "COMPUTER-CONTROLLED NTSC SINGLE-CHIP LSI FOR COLOR TV" IEEE TRANSACTIONS ON CONSUMER ELECTRONICS,US,IEEE INC. NEW YORK, vol. 39, no. 3, page 429-434 XP000396314 ISSN: 0098-3063 page 432, column 2 ---	1-11
A	US 5 339 114 A (LAGONI WILLIAM A ET AL) 16 August 1994 (1994-08-16) column 4, line 21 -column 8, line 12 ---	1-11
A	US 4 742 392 A (HASHIMOTO SEIJI) 3 May 1988 (1988-05-03) column 3, line 22 -column 7, line 49 ---	1-11
A	US 4 980 756 A (LAGONI WILLIAM A) 25 December 1990 (1990-12-25) column 2, line 22 -column 5, line 41 -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/EP 00/05450

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 08251503 A	27-09-1996	US 5978041 A	02-11-1999
EP 0178044 A	16-04-1986	JP 61039625 A	25-02-1986
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		EP 0414158 A	27-02-1991
		ES 2096566 T	16-03-1997
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		JP 3091393 A	16-04-1991
		KR 169963 B	20-03-1999
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		TR 26428 A	15-03-1995